Results

RESULTS

This study involved 50 infertile women. Of these, 32 (64%) had primary infertility and 18(36%) had secondary infertility.

Age Distribution : This is shown in table 1.

Table (1) " Age Distribution :

Age/years	1 ry infertility No.	2 ry infertility No.	Total	%
15-19	5	1	6	12
20-24	14	3	17	34
25-29	4	5	9	18
30-34	9	9	18	36
Total	32	18	50	100

Table (2): Range and mean age :

Age/yreas	1ry infertility	2rd infertility	Total
Range	18-32	19-34	18-34
Mean	24.3	28.8	25.9
± SD	± 4.5	±4.6	±5.0

T= 3.328

P<0.01 (statistically significant).

Table 2 shows that the age of patients who had primary infertility ranged from 18-32 years, and that for those who had secondary infertility ranged from 19-34 years. The mean age for the first group was 24.3 years, with a S.D. of ± 4.5 years, while that for the second group was 28.8 ± 4.6 years.

Duration of Infertility : This is shown in table 3.

Table (3): Duration of infertility:

Duration/years	1ry infertility No.	2ry infertility No.	Total	%
Less than 2	2	1	3	6
2-4	12	8	20	40
5-9	10	6	16	32
10-14	8	3	11	22
Total	32	18	50	100

Table (4): Range and mean duration of infertility.

Duration	1ry infertility	2ry infertility	Total
Range	1-14	1-10	1-14
Mean duration	6.2	5.1	5.8
± SD	±4.0	±2.8	±3.7

$P > 0.05$ (statistically insignificant).

Table 4 shows that the duration of infertility in the first group ranged from 1-14 years, with a mean duration of 6.2 ± 4.0 years. In the second group, it ranged from 1-10 years with a mean duration of 5.1 ± 2.8 years ($P > 0.05$).

Menstrual History : This is shown in table 5.

Table (5): Menstrual history :

Menstrual history	1ry infertility No.	2ry infertility No.	Total	%
1) Normal	21	11	32	64
2) Spasmodic dysmensorrhea.	8	4	12	24
3) Oligohypomenohea.	2	3	5	10
4) 2ry amenorrhea	1	-	1	2
Total	32	18	50	100

Gravidity:

Gravidity in secondary infertility cases is shown in table 6.

Table (6): Gravidity:

Gravidity	No.of cases	%
Gravida 1	8	16
Gravida 2	5	10
Gravida 3	3	6
Gravida 4	1	2
Gravida 5	1	2
Total	18	36

All 18 patients had a total of 36 pregnancies. The incidence of abortions was 32%, while the incidence of delivaries was 68%.

Past History : This is shown in table 7.

Table (7): Relevant Past History.

Past History	1ry infertility No.	2ry infertility No.	Total	%
Bilhariziasis	2	-	2	4
Tuberculosis	1	-	1	2
Diabetes Mellitus	-	1	1	2
Puerperal Sepsis	-	3	3	6
Post Abortive Fever	-	2	2	4
Dilatation and Curettage	10	2	12	24
Tubal Insufflation	3	1	4	8
Appendicectomy	2	1	3	6
Caesarian section	-	1	1	2
Cautarization of the Cx.	2	2	4	8
Clomiphene Therapy	2	-	2	4
Total	22	13	35	70

Findings at clinical examination: This is shown in table 8.

Table (8): Findings at clinical examination:

Findings at clinical examination	1ry infertility No.	2ry infertility No.	total	%
Normal findings	17	12	29	58
Retroverted uterus	6	3	9	18
Rectocele	-	1	1	2
Subserous fibroid	2	-	2	4
Bilateral cystic ovary	4	1	5	10
Unilateral ovarian cyst	3	1	4	8
Total	32	18	50	100

Uterine Findings at HSG and Laparoscopy : This is shown in table 9.

Table (9): Uterine Findings at Hysterosalpingography and laparoscopy:

Uterine Findings	HSG		Laparoscopy	
	No.	%	No.	%
Normal uterus	39	78	33	66
Small uterus	2	4	1	2
Bicornuate uterus	3	6	1	2
Arcuate uterus	2	4	-	-
Subserous fibroid	-	-	4	8
Submucous polyp	2	4	-	-
Retroverted uterus	-	-	6	12
Adhesions to surrounding structures	-	-	5	10
Intravasation of the dye	2	4	-	-
Total	50	100	50	100

As HSG shows lumina, the following results were obtained: A normal uterine cavity was found in 39 patients (78%),

a small uterus (with a cavity less than 5cm. in length) in 2 patients (4%), a bicornuate uterus in 4 patients (6%), an arcuate uterus in 2 patients (4%), a submucous polyp in 2 patients (4%), and in 2 cases (4%) there was lymphatic intravasation of the dye.

At laparoscopy which shows mainly surfaces, the following results were obtained : A normal uterus in 33 patients (66%), a small uterus in one patient (2%)- compared to 3 cases diagnosed by HSG,-a bicornuate uterus in only one case (2%)- compared to 3 cases diagnosed at HSG , a small subserous fibroid in 4 patients (8%), and adhesions of the uterus to the surrounding structures (omentum, bladder and tubes) were seen in 5 patients (10%) of cases.

Ovarian Findings at Laparoscopy : This is shown in table 10.

Table (10): Ovarian findings at laparoscopy:

Ovarian findings	No. of cases	%
Normal ovaries	30	60
Bilateral cystic ovaries	7	14
Ovarian cyst (unilateral)	5	10
Bilateral sclerocystic ovaries	2	4
Adhesions	6	12
Total	50	100

Table 9 shows that laparoscopy revealed normal ovaries in 30 cases (60 %). However, in this study, laparoscopy yielded a high rate of ovarian abnormalities . In 7 cases (4%), laparoscopy revealed bilateral cystic ovaries, and in 2 cases (4%), it revealed bilateral sclerocystic ovaries. None of these cases were diagnosed by HSG, while only 5 were suspected during clinical examination.

In 5 cases (10%), laparoscopy revealed a unilateral ovarian cyst, that was not diagnosed by HSG, but was suspected during clinical examination. Ovarian adhesions to the pelvic wall and to the surrounding structures were also diagnosed by laparoscopy in 6 cases (12%).

Tubal patency at HSG and laparoscopy : This is shown in table 11.

Table (11): Tubal patency at HSG and laparoscopy :

Tubal patency	HSG		Laparoscopy		p
	No.	%	No.	%	
Bilateral patent tubes	26	52	32	64	P>0.05
Unilateral tubal block: isthmical	3	6	5	10	P>0.05
fimbrial	4(2)*	8	3(1)*	6	
Bilateral tubal block: isthmical	12	24	7	14	P>0.05
fimbrial	5(2)*	10	3(2)*	6	
Total	50	100	50	100	

(*)= Hydrosalpnix.

Table 11 shows that the diagnosis of bilateral tubal patency was made at HSG in 26 patients (52%), versus 32 patients (64%) at laparoscopy. Three patients (6%) had unilateral isthmical block at HSG versus 5 patients (10%) at laparoscopy. Out of 12 patients (24%) with bilateral isthmical block at HSG, only 7 of them (14%) were seen to have the same condition at laparoscopy. HSG revealed unilateral fimbrial block in 4 patients (8%) versus 3 (6%) at laparoscopy and bilateral fimbrial block in 5 cases

(10%), where only 3 (6%) were seen at laparoscopy.

HSG diagnosed hydrosalpinx in 2 patients (4%). Only one of them was seen at laparoscopy, the other had a phimotic but otherwise patent tube. Two patients had bilateral hydrosalpinx diagnosed during both procedures.

Comparison between HSG and laparoscopy as regards the site of Tubal Block : This is shown in table 12.

Table (12): Comparison between HSG and laparoscopy as regards the site of the Tubal block :

HSG		Laparoscopy				
Tubal Findings	No.	Bilateral patent tubes	Unilateral tubal block		bilateral tubal block	
			Isthmical	Fimbrial	Isthmical	Fimbrial
bilat.patent tubes	26	23	2	-	1	-
Unilat.isthmical block	3	1	2	-	-	-
Unilat.fimbrial block	4	1	-	3	-	-
Bilat. isthmical block	12	5	1	-	6	-
Bilat. fimbrial block	5	2	-	-	-	3
Total	50	32	5	3	7	3

Table 12 shows that there were differences in tubal patency and the site of tubal block between HSG and laparoscopy.

1. Out of 32 cases (64%) with bilateral patent tubes at laparoscopy, only 26 patients (52%) were revealed by HSG.
2. Laparoscopy revealed 5 cases with bilateral patent tubes out of 12 cases with bilateral isthmical block at HSG. Also out of those 12 patients, laparoscopy revealed another 2 patients with only unilateral isthmical occlusion.
3. Out of 5 cases diagnosed as bilateral fimbrial block at HSG, 2 cases proved to have bilateral patnecy at laparoscopy.
4. Out of 4 cases with unilateral fimbrial occlusion at HSG, one patient had bilateral patency at laparoscopy.
5. HSG diagnosed 3 cases of unilateral isthmical block. At laparoscopy only two were confirmed, the third had bilateral patent tubes.
6. Laparoscopy revealed 2 cases of bilateral isthmical block and another case of unilateral isthmical block out of 26 cases with bilateral patent tubes at HSG.

7. There was complete agreement between HSG and laparoscopy as regards tubal patency and the site of tubal block in 37 patients (74%) and disagreement in 13 patients (26%).

8. The differences between HSG and laparoscopy as regards tubal patency and the site of tubal block was not statistically significant ($P > 0.05$).

Pelvic Adhesions at HSG and Laparoscopy : This is shown in table 13.

Table (13): Comparison between HSG and laparoscopy as regards the diagnosis of pelvic adhesions.

HSG			Laparoscopy (Adhesions)				
Delayed film	No.	%	mild	moderate	Extensive	No.	%
Free smearing	28	56	4	1	-	5	10
Evidence of localization	6	12	-	1	3	4	8
No spill	16	32	2	3	2	7	11
Total	50	100	6	5	5	16	32

$P < 0.01$

Table 13 shows that laparoscopy revealed various degrees of pelvic adhesions in 16 patients (32%), while only 6 cases (12%) were detected at HSG. This difference was statistically significant ($P < 0.01$).

Laparoscopy revealed mild and moderate adhesions in 5 patients (10%) out of 28 patients (56%)showing free smearing at HSG.

In 6 patients showing evidence of localization at HSG, laparoscopy revealed moderate adhesions in one case

and extensive adhesions in 3 cases. Laparoscopy was also of value in patients showing no spill at HSG, due to bilateral tubal block as there were 7 cases of pelvic adhesions diagnosed during laparoscopy in 16 patients showing no spill after 24 hours at HSG.

Endometriosis :

Only one case of endometriosis was found in this study, where few dark brownish spots were detected in the uterovesical pouch and on the surface of one ovary. This could be due to racial factors, as the incidence of endometriosis in some other studies is much higher.